



2003 Standard Course of Study and Common Core State Standards for Geometry and Algebra II

North Carolina Assessment Specifications Summary

Measures of Student Learning: North Carolina's Common Exams for Geometry and Algebra II

Purpose of the Assessments

- Measures of Student Learning: North Carolina's Common Exams for Geometry and Algebra II will *primarily* measure students' academic progress in the 2003 *Standard Course of Study (SCS)* and select *Common Core State Standards (CCSS)* for Math, adopted by the North Carolina State Board of Education in June 2010. The Common Exams for Geometry and Algebra will focus on a combination of 2003 *SCS* and *CCSS* content as shown in tables 1 and 2.
- Common Exam scores (along with any other relevant end-of-course or end-of-grade assessment scores) will be used in the Educational Value Added Assessment System (EVAAS) to produce student growth measures to satisfy Standards 6 and 8 of the North Carolina Educator Evaluation System.
- Common Exams were developed to replace locally developed assessments, providing teachers and principals with a common measure for all students state-wide during a given testing window. Educators are encouraged to use Common Exam scores in determining the student's final grade for each course. LEAs are encouraged to adopt policies regarding the use of Common Exam results in assigning final grades.
- Common Exams will NOT be used for school and district accountability under the READY Accountability Model or for Federal reporting purposes.
- For more information on the North Carolina Educator Evaluation System go to <http://www.ncpublicschools.org/educatoreffect/>.

Curriculum Cycle

- June 2010: North Carolina State Board of Education adoption of the *CCSS*.
- 2011–2012: Item development for the Common Exams in Geometry and Algebra II.
- 2012–2014: Operational administration of Common Exams in Geometry and Algebra II.

Standards

- The *2003 Standard Course of Study for Geometry and Algebra II* are posted at: <http://www.ncpublicschools.org/curriculum/mathematics/scos/2003/9-12/index>.
- The *CCSS* are posted at: <http://www.ncpublicschools.org/acre/standards/common-core/>.

Prioritization of Standards

- The North Carolina Department of Public Instruction (NCDPI) invited teachers to collaborate and develop recommendations for a prioritization of the standards indicating

the relative importance of each standard, the anticipated instructional time, and the appropriateness of the standard for multiple-choice (MC) and constructed response (CR) item formats. Subsequently, curriculum and test development staff from the NCDPI met to review the results from the teacher panels and to develop weight distributions across the domains for each grade level.

- Tables 1 and 2 describe the percentage of test questions that will appear on the Common Exams forms in Geometry and Algebra II. The majority of the items will be multiple-choice (83% to 88%), while a minority will be constructed response (12% to 17%). Students will probably take 20% to 25% of the available testing time to answer the CR items. As such, CR items will be worth up to three points each.

Table 1. Test Specification Weights for the Common Exams in Geometry

2003 Standard Course of Study	Common Core State Standards	MC	CR
<i>Number and Operations</i>			
1.02, 1.03	*	14-18%	0%
1.01	G.SRT.4, 8	4-6%	2-4%
<i>Geometry and Measurement</i>			
2.01	*	4-6%	0%
2.02, 2.03	G.CO.9, G.C.2, G.CO.10, 11	30-36%	8-13%
<i>Data Analysis and Probability</i>			
3.01	*	10- 12%	0%
Total percent of items		83-88%	12-17%
Total percent of score points		72-75%	25-28%

Table 2. Test Specification Weights for the Common Exams in Algebra II

2003 Standard Course of Study	Common Core State Standards	MC	CR
<i>Number and Operations</i>			
1.01 – 1.05	*	12-20%	0%
<i>Algebra</i>			
2.01,2.04,2.05, 2.06, 2.07, 2.09	*	44-62%	0%
2.02, 2.03, 2.08, 2.10	A.REI.4, F.IF.8, F.IF.4, F.LE.4, A.CED.1, F.IF.7b, A.REI.7,	10-16%	12-17%

and A.REI.10

Total percent of items	83- 88%	12-17%
<i>Total percent of score points</i>	<i>72-75%</i>	<i>25-28%</i>

Cognitive Rigor

- Although the writers of the *CCSS* did not use a learning taxonomy, the Algebra II and Geometry MC items were aligned to the content standards using Marzano's *Thinking Skill Levels*. To read more about North Carolina's *Thinking Skill Levels* and how they were used to align MC items to the 2003 *SCS* read http://www.ncpublicschools.org/docs/accountability/testing/eog/asb_thkskl.pdf.

Types of Items

- The Common Exams for Geometry and Algebra II will consist of four-response-option multiple-choice items and short constructed response items.
- The MC items will primarily align to the 2003 *SCS* content as shown in Tables 1 and 2. Please note, Tables one and two do not show all the overlap between the 2003 *SCS* and the *CCSS*.
- Each CR item will align to both the 2003 *SCS* and the *CCSS* shown in Tables 1 and 2. The constructed response items will require students to arrive at the correct numeric answer and show their work. Responses to CR questions will receive 0, 1, 2, or 3 points.
- Students will be allowed to use calculators for all items.

Testing Structure and Time

- The Common Exams will consist of about thirty MC items and about five CR items. The test will be presented in two parts. Students will be given forty-five minutes to complete each part. Part one will contain eighteen to twenty-one MC items. Part two will contain eight to twelve MC items and four to six CR items. Students should monitor the clock to ensure they allow themselves adequate time to respond to the questions.

Delivery Mode

- The Common Exams in Geometry and Algebra II are designed for paper/pencil mode; however, some districts may choose to convert the paper/pencil test for online administration through their own online administration systems. It is a local decision to determine if the Common Exams will be administered in paper/pencil or online.